Delegate Workshop Metrological Traceability

Introductory Comments – W. E. May

Implementation of Standardization and Traceability in Laboratory Medicine – M. M. Müller

Implementing Metrological Traceability in Laboratory Medicine: JCTLM Role – W. E. May

Implementing Metrological Traceability in Laboratory Medicine: NCCLS Role – M. L. Salit

Metrological Traceability in Laboratory Medicine: A Manufacturer's Perspective – R. R. Miller, Jr.



Traceability: The property of the result of a measurement or the value of a standard whereby it can be related to

stated references, usually national or international standards, through an unbroken chain of comparisons, all having stated uncertainties.

(VIM)

RMOs
NMIs

Private and State
Lab Measurements

Field Measurements

Uncertainty (of measurement): "A parameter associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the measurand."

Drivers for Improved Quality in Clinical Measurements

• U.S. HC Measurement Costs

- U.S. Spends ~ \$1.1 trillion on Health Care
- ~10-15% associated with measurement
- Non-diagnostic measurements cost ~\$40B

• German Health report 1998

- Costs of repeat measurements amounts to 1.5 B US\$ per year in Germany
- Medical Decision-Making
 - Incorrect diagnosis and treatment
 - Impairment of patient well-being



New Regulatory Requirement: EU IVD Directive



A New Driver: EU IVD Directive to go into effect 2003

- Worldwide in vitro diagnostic device market is ~\$20B;
- >60% of European market is supplied by U.S.



Stated Purpose of Directive

• Eliminate trade barriers within Europe by ensuring access to the entire EU market with one single product approval (CE Mark)

Major Requirement

- IVD Calibrators and/or control materials must be traceable to "standards of a higher order"
 - nationally/internationally recognized reference methods and/or certified reference materials

Scheduled Implementation

- First IVD product with CE Mark may be placed from June 2000 onwards
- All new IVD products must have mark by December 2003 (may be delayed)
- Existing IVD products may be sold without the CE mark until December 2005

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